

TECHNICAL DATASHEET

CNC-Profile Grinder for cylindrical Gears

Manufacturer	GLEASON PFAUTER
Type	P1200 G
Control	SINUMERIK 840 C
Built	1998



Working Area

Nominal workpiece diameter	Ø 1.200 mm
Max. Radial travel (X-axis)	770 mm
Max. Tangential travel (Y-axis)	300 mm
Max. Axial travel (Z-axis)	700 mm
Lowest grinding wheel position above table	470 mm
Max. Profile depth	80 mm
Grinding spindle swivel angle (A-axis)	+/- 45 °

Workpiece table

Outer diameter	800	mm
Bore diameter x depth	Ø 300 x 900	mm
T-slots	6 x size 22H12	pitch 30°
Max. permissible load	10.000	kg
Max. Table speed	5	1/min
Hydrostatic radial bearing		
Axial plain bearing		

Grinding spindle drive, grinding wheel

Drive power	24	kW	Medium-frequency three-phase motor, liquid-cooled
Speed range	1.200 – 6.000	1/min	
Grinding arbor Ø	80	mm	
Profile grinding wheel max. dimension	400x80x127	mm	
Min/max. distance from center of grinding spindle to center of table	100 / 900	mm	
Integrated automatic balancing device			

Counterholder

Steady rest diameter min./max.	110/250	mm
Slide travel	900	mm
Position above table min./max.	770 / 1.670	mm
Hydraulically movable with tailstock center		

NC Dressing unit

Feed rate	2.400	mm/min
Speed	2.000 – 8.000	min-1
Diameter of dressing wheels max.	130	mm
Dresser in two-roller design (Y/Z2)		

Feeds and rapid traverse

X-Axis	3	m/min
Y-Axis	5	m/min
Z-Axis	6	m/min

Dimensions and weight

Space requirements	7,0 x 7,0 x 4,0	m
Machine weight approx.	29.000	kg

Connection Data

Total connected load approx.	80	kVA
Operating voltage	400	V
Operating frequency	50	Hz
Control voltage	24	V DC

Gear grinding software

- Dialog software for the automatic generation of part programs for profile grinding of external gears
- Data backup (backup/restore)
- Data import/export
- Pitch jump compensation
- Warm-up program
- Offline version
- Integrated grinding time calculation
- Automatic cut division
- Entanglement-controlled grinding in single flank grinding
- Grinding of double helical gears
- Double helical centers
- Gear measurements for involute external gearing workpieces according to DIN 3961
- The following measurements can be carried out: Profile measurement, flank line measurement,
- pitch and concentricity test, tooth width measurement, tip and root circle diameter
- Measurement evaluation by area
- Printing of input data
- Printing of measurement evaluations

Equipment and Accessories

- Basic machine P1200G with Siemens Sinumerik 840C control system
- All axes and spindles in SIMODRIVE 611 D digital drive technology.
- NC dressing device with two dressing spindles and additional infeed axis
- Centering device with 3D measuring probe (external)
- Fume separator incl. extraction system
- External grinding head with 24kW and 6,000 rpm
- Internal grinding device
- Pitch jump compensation
- Warm-up program
- Integrated grinding time calculation
- Automatic cut division
- Entanglement-controlled grinding in single flank grinding

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CNC-Profile Grinder

Gleason Pfauter P1200G

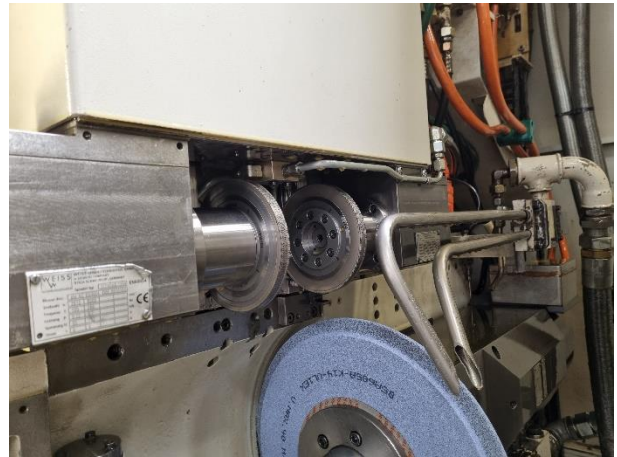
- Gear measurement
- Workpiece table with separate servo drive and 1-speed double worm gear unit
- Hardened and ground ball screws with preloaded nuts
- Full enclosure of the work area
- Hoffmann coolant and filter system, approx. 30 kW, coolant cleaning with fine filter
- Oil recooling system with cooling circuits for the lubrication and cooling lubricant system as well as for the grinding spindle drive
- Fixed column with hydraulically movable counterholder
- Steady rest with tailstock function and adapter tip
- Electronic control panel
- Machine light
- Documentation and manuals
- Backup



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